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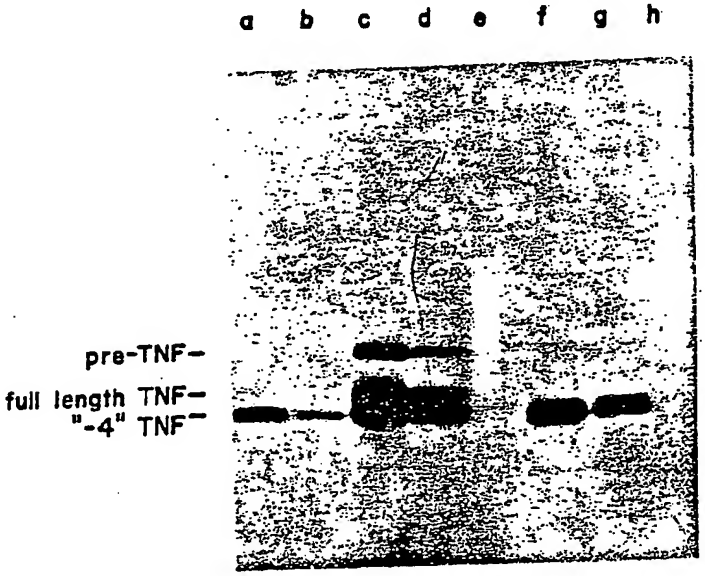

(57) Abstract

Vectors effective for the expression and secretion of heterologous genes in streptomycetes are disclosed. Such vectors comprises a plasmid replicable in *Streptomyces*, which comprises a *Streptomyces* promoter and a DNA sequence encoding a *Streptomyces* signal sequence operably linked to, and under control of the promoter, which DNA sequence encoding a *Streptomyces* signal sequence may be operably linked to a heterologous gene encoding a desired protein so that the *Streptomyces* signal sequence and heterologous protein are expressed, and the desired protein is secreted under control of the *Streptomyces* signal sequence. Various *Streptomyces* promoters and secretion signal sequences may be used in the invention, and DNA sequences comprising the promoters operably linked to DNA sequences encoding *Streptomyces* signal sequences, are disclosed as part of the invention. Vectors comprising the *Streptomyces aph*, *ermE*, *ermEa1* and modifications thereof, controlling the expression of the *amy* and ORF438 signal sequences, which lead to secretion of desired heterologous proteins when transformed into *Streptomyces* hosts, are exemplified.